# Researching the Futuristic Entrepreneurial Actions for Tribal Farmers of North-East India


## Abstract

The North-East region of India, with its rich cultural diversity and biodiversity, is especially well-suited for agricultural growth. Given its potential, one would expect this region to be at the forefront of agri-entrepreneurial activities. Additionally, with the last few years, agriculture and its supplementary sectors became crucial components of entrepreneurial projects buoyed up by the existing need for sustainable food production, appropriate management of resources, and improving the living standards in rural areas. However, this expectation contrasts with findings from Micro, Small & Medium Enterprises (MSMEs) studies for North-East region of India. Therefore, the study aimed to identify future entrepreneurial actions in the Mishmi Hills of Arunachal Pradesh. Using an open-ended questionnaire, the researchers employed a triangulation approach to analyse potential ventures in the region. The study identified ten key entrepreneurial actions. Agro-tourism emerged as the top choice among local tribal farmers, while the commercialization of Mishmi teeta (a traditional medicinal plant) was ranked highest by experts in the region. These findings offer valuable insights for stakeholders in the region. The study highlights the entrepreneurial interests of tribal farmers and suggest areas for policy development and training programs to enhance agri-entrepreneurship in the region.



**Keywords:** Tribal Farmers, Entrepreneurial Actions, Entrepreneurial Opportunities, Mishmi Hills, Arunachal Pradesh, North-East India




## Introduction

In recent years, the agricultural and related sectors have increasingly gained focal points for entrepreneurial efforts, largely due to the growing need for sustainable food production, resource management, and rural development (Amirnejad et al. 2024). With global populations rising and environmental challenges such as climate change intensifying, the demand for innovative solutions in agriculture has never been higher. The growth of entrepreneurship in agriculture carries wide ranging economic and social impacts. It contributes to economic diversification, particularly in developing countries where agriculture remains a primary source of employment. Through job creation and enhancing

agricultural productivity, entrepreneurship plays crucial role in reducing poverty, strengthening food security, and foster rural development.

The North-East regions of India, is known for its diverse culture and biodiversity. The region consist of eight states namely Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. The region holds a landmass of 2.6 million sq.km accounting for 7.9 per cent of India's total geographical area and has a population of approximately 45 million people that account for 3.7 percent of the country's total population. The per cent utilization of cultivable area is about 62 % and which is less than the national averages of 70 % percent. The region is endowed with natural resources and has unique features such as fertile land, water resources, dense forest, high rainfall, mega biodiversity, flora and fauna (Sharma, 2020). The region's unique agricultural ecosystem includes diverse crops like spices, tea, cashews, and high-value horticultural products, which are now increasingly integrated into market-oriented value chains (Baishya et al. 2021).

With majority of the population, predominantly tribal, dependent on agriculture and land-based activities and having more than 98 per cent international border, sharing international boundaries with China in the North, Myanmar in the East, Bangladesh in the South West, Nepal in the West and Bhutan to the North West (Census, 2011), agri-businesses in the Northeast could focus on leveraging this diversity, including animal husbandry and fisheries, to generate employment and increase incomes.

Despite the North-East region's strong agricultural economy, which supports around 70% of its population, entrepreneurship remains underdeveloped compared to other parts of India. According to data from the fourth Census of Micro, Small & Medium Enterprises (MSME), the North-East contributes just 7.36% to business ownership (compared to the global average of 7.72%), with SC & ST communities owning 11% and the region itself accounting for only 3.48%. Most ownership is limited to micro-enterprises, and there are relatively few businesses in agriculture or related sectors, despite the region's abundance of natural and human resources.

Given these resources, this study aims to explore potential actions for future agri-business development in the North-East region of India.

**Materials and Methods**

The study adopted a triangulation survey approach to explore potential entrepreneurial actions among tribal farmers in the region. Each farmer was asked to identify possible entrepreneurial activities in agriculture and allied sectors.

The ten most frequently mentioned actions were recorded. These ideas, gathered from tribal farmers in the Mishmi Hills, were then shared with seventeen experts from agricultural and allied sectors for validation. The goal was to assess the feasibility and practicality of these ideas, ensuring they were in line with market trends and resource sustainability. By involving experts, the study aimed to prioritize these entrepreneurial actions, leveraging their technical expertise, market insights, policy knowledge, and ability to provide valuable support through training and education.

**Study Area**

The study was conducted in two purposively selected districts of Arunachal Pradesh, India: Dibang Valley and Anjaw. The researcher's familiarity with the region and local language facilitated effective communication. A total of 300 tribal farmers and 17 experts participated in the study. The experts included agricultural and horticultural development officers, subject matter specialists, and field experts from agricultural and allied sectors who were either directly or indirectly involved in supporting tribal farmers' entrepreneurial activities. Data collected from all participants were systematically organized and analysed to ensure the reliability and accuracy of the findings.

**Results and Discussion**

The futuristic entrepreneurial action refers to business initiatives or strategies that are forward-thinking to meet the future market demands, technologies and advance social changes, particularly in the agricultural and allied sector of Mishmi Hills of Arunachal Pradesh and North East India.The futuristic entrepreneurial actions available in the Mishmi Hills that could significantly improve the livelihood of the Mishmi community were identified through an open-ended questionnaire. The proposed list of entrepreneurial actions was analyzed using percentage calculations, as presented in the table 1.

**Table**1: **Suggested entrepreneurial actions by tribal farmers of Mishmi Hills**

**(n=300)**

| S.No. | Entrepreneurial opportunities | Total number of respondents | Percentage (%) |
|---|---|---|---|
| **1** | Agro-tourism | 271 | 90.33 % |
| **2** | Value addition units (Kiwi, Apple and Orange) | 218 | 72.67 % |

| | | | |
|---|---|---|---|
| **3** | Commercialization of Mishmi teeta (Traditional medicinal plant) | 205 | 68.33 % |
| **4** | Cardamom processing units | 176 | 58.67 % |
| **5** | Cold storage units | 147 | 49.00 % |
| **6** | Bamboo handicrafts industries | 103 | 34.33 % |
| **7** | Spice production unit | 101 | 33.67 % |
| **8** | Piggery and poultry production unit | 81 | 27 % |
| **9** | Organic production industry | 67 | 22.33 % |
| **10** | Agri-clinic enterprise | 58 | 19.33 % |

The table 1 reveals that majority of the respondents (90.33%) from Mishmi Hills suggested agro-tourism as the top potential entrepreneurial action available in the region. This finding may be due to the fact that Arunachal Pradesh, particularly Mishmi Hills is known for its natural beauty, wildlife, and cultural heritage. Tribal farmershave the opportunity to develop agro-tourism enterprise by offering homestays, guided tours and farm to table experiences locally. This finding is similar to Mondal et al. (2023) and Norbu and Jena (2019) findings.

Establishing of value addition units was identified as second most suggested entrepreneurial action in the Mishmi Hills, by 72.67 per cent of the respondents. As the region is well known for favorable climate for growing variety of crops, fruits and spices, such as kiwi, orange, and apple. Establishing agro-processing units has the potential to boost the economy, improve livelihoods of the region and ensure long term sustainable growth. This finding aligns with Mihu et al. (2024) findings.

Commercialization of Mishmi teeta, as a potential entrepreneurial action was suggested by 68.33 per cent of the respondents. Mishmi teetais considered rare and endangered plant. It is prevalent to a very small area in the Mishmi Hills and the location is difficult to access. The local dwellers of Mishmi hills travel to the mountains to collect the rhizome, bring it home and dry rhizomes of the plant under the sun for medicinal purposes. As the plant is only found in Mishmi Hills and can be used in the pharmaceutical and wellness industries, it brings huge entrepreneurial opportunity among the dwellers of Mishmi Hills. This findings align with Chelleng et al. (2024) findings.

Both the districts: Dibang Valley and Anjaw, in the Mishmi Hills, are considered as the largest producer of cardamom in the state. Hence, the need for cardamom processing units

was considered as necessary and area for entrepreneurial opportunity. Majority of the respondents (58.67%) suggested this as an opportunity in agricultural and allied sector. This finding may be due to the fact that raw cardamom fetches only basic market price or sometimes below the market price because of low grading process. However, processing the cardamom: cleaning, grading, drying and packaging, increases the market price and it can be stored for longer duration, thereby enhancing the value of product delivering higher price for the farmers. These findings align with Wangchu et al. (2024) findings.

From the table 1 it can be observed that less than half of the respondents (49%) suggested that establishing cold storage units is one of the entrepreneurial actions in the region. This study aligns with Mani et al. (2018) findings. The region is well known for fruits production which are perishable in nature. Therefore, cold storage becomes essential for preservation of perishable goods and ensuring the quality and freshness of the produce. However, it the region has no storage units, creating the potential entrepreneurial opportunities for tribal farmers of Mishmi Hills. This can play crucial role in food processing industries, pharmaceuticals, and retails enhancing the livelihood security among the Mishmi community. This finding aligns with Bania et al. (2024) findings.

The state: Arunachal Pradesh is one of the largest bamboo producing region in the country, and home to around 90 species of bamboo out of 130 species found in India. Hence, bamboo handicrafts industries was suggested as one of the entrepreneurial action in Mishmi Hills by 34.33 per cent of the respondents. Bamboo is a key livelihood resource for Mishmi community for construction of houses, handicrafts and commonly used in agriculture (fencing, tools). Bamboo also has the potential to play crucial role in climate resilience, bio-diversity conservation and sustainable development, making it vital for the future ecological and economic prosperity of the region. These findings align with Mihu et al. (2024) findings.

The table 1 indicates that 33.67 per cent of the Mishmi Hills respondents suggested spice production units as an entrepreneurial action that can significantly improve the community status economically. During the survey it was observed that majority of the respondents were cardamom growers in the region, who often require a production unit to enhance the value of their crop, improve profitability and meet the market demand. This finding is similar to the findings of Saikia et al. (2024).

The table 1, indicates that 27 per cent of the respondents suggested piggery and poultry production unit as an entrepreneurial action. This may due to the fact that local piggery and poultry production in the Mishmi Hills carries significant cultural importance. As demand for these products increases during the cultural events and the availability of

indigenous breeds is declining, there is a promising entrepreneurial opportunity to establish piggery and poultry production units in the region. Scientific piggery and poultry production can enhance the tribal farmers profits by optimising efficiency, improving product quality (breeding, feeding, disease control and management) and reducing operational costs for long term profitability.

The table 1 reveals that less than half of the population i.e. 22.33 per cent and 19.33 per cent of the respondents have suggested organic production industry and agri-clinic enterprise respectively, as promising enterprises for the Mishmi Hills. This finding may be attributed to the fact that Arunachal Pradesh is making strides in organic production, though it is still an emerging sector in the state. With the state launching the Arunachal Pradesh Organic Mission to promote organic farming and providing financial assistance in collaboration with NABARD, the state and region holds immense entrepreneurial potential in the area for organic production industry and agri-clinic enterprise. These findings align with Wangchu et al. (2024) findings.

Overall, from the table 1, it can be observed that the data highlights entrepreneurial actions by their popularity and potential among the tribal farmers of Mishmi Hills. The data revealed agro-tourism, value addition and commercialization of Mishmi teeta as top three entrepreneurial action suggested by the respondents. While, cold storage, bamboo handicrafts and spice production were ranked lower than expected, reflecting the need for better infrastructure and market access in the region. Piggery and poultry production units, bamboo handicrafts industries, organic production and agri-clinic enterprises, suggested by less than half of the respondents, perhaps due to limited awareness or demand for such services.

**Expert analysis on the proposed entrepreneurial actions**

The suggested entrepreneurial actions were shared to experts and their responses were recorded using percentage analysis, as given in the table 2.

**Table**2: **Analyzing suggested entrepreneurial action by agricultural and allied sector experts of Mishmi Hills**

**(n=17)**

| S.No. | Entrepreneurial opportunities | Total number of respondents | Percentage (%) |
|---|---|---|---|
| **1** | Commercialization of Mishmi teeta | 15 | 88.23 % |

| | | | |
|---|---|---|---|
| | (Traditional medicinal plant) | | |
| **2** | Cold storage units | 13 | 76.47 % |
| **3** | Value addition units<br>(Kiwi, Apple and Orange) | 12 | 70.58 % |
| **4** | Cardamom processing units<br>+ Spice production unit | 10 | 58.82 % |
| **5** | Agri-clinic enterprise | 9 | 52.94 % |
| **6** | Piggery and poultry production unit | 7 | 41.17 % |
| **7** | Organic production industry | 6 | 35.29 % |
| **8** | Agro-tourism | 5 | 29.41 % |
| **9** | Bamboo handicrafts industries | 4 | 23.52 % |

From the table 2, it is indicated that majority of the experts (88.23%) considered commercialization of Mishmi teeta holds the highest potential in current market for herbal products. This not only aligns cultural and health trends, but also supports the conservation of this traditional herb. While, 76.47 per cent of experts indicated cold storage units as a crucial need for preservation of agricultural produce in the region, followed by value addition units (70.58%), cardamom processing units and spice production units (58.82%), agri-clinic enterprise (52.94%), piggery and poultry production units (41.17%), organic production industry (35.29%), agro-tourism (29.41%) and bamboo handicrafts industries (23.52%).

Overall, the studyresults, demonstrated a clear preference for entrepreneurial actions that align with local resources, cultural practices and emerging market trends, providing insights for potential tribal entrepreneurs in the Mishmi Hills of Arunachal Pradesh.

**Conclusion**

The present study offers valuable insights into the perspectives of tribal farmers regarding future entrepreneurial actions that could improve the economic and social conditions of the Mishmi community. It highlights that entrepreneurship in agriculture and related sectors within the Mishmi Hills has the potential to bridge the rural-urban economic divide while also promoting environmental sustainability. By focusing on these identified opportunities, unemployment among tribal farmers can be reduced, and their farm income increased. Additionally, tribal entrepreneurs can play a crucial role in addressing global challenges such as climate change and land degradation in the region. The study emphasizes

that Agri-entrepreneurship has the potential to drive innovation throughout the agricultural value chain from production to consumption and enhance the livelihood security of the Mishmi tribal community in Arunachal Pradesh, India.

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